HEMATITE FUEL FABRICATION FACILITY, WOOD BARN
(Building No. 120)
3300 State Road P
Festus
Jefferson County
Missouri

HAER MO-113-D
MO-113-D

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240-0001

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HEMATITE FUEL FABRICATION FACILITY
BUILDING 120
(Wood Barn)

HAER No. MO-113-D

Location: 3300 State Road P
Festus, Jefferson County, Missouri

Present Owner: Westinghouse Electric Company Limited Liability Corporation (LLC).

Present Use: Contaminated equipment storage

Significance: The Hematite Fuel Fabrication Facility, also known as Hematite Former Fuel Cycle Facility and the Westinghouse Electric Company Hematite Facility, was constructed over a period of thirty-one years. The Facility was the first privately owned and operated uranium fuel production plant in the United States. The plant produced nuclear fuel for military as well as peacetime purposes throughout the "Cold War" era.

The Hematite Fuel Fabrication Facility produced high-enriched nuclear fuel for the U.S. Navy nuclear submarine program and other reactor programs during the "Cold War" years of 1956 to 1974. After 1974 the Facility produce only commercial grade low enriched uranium for commercial nuclear power facilities.

PART I. HISTORICAL INFORMATION

A. Physical History

1. **Date of Construction:** Circa 1930s

2. **Architect:** The architect for this building is unknown.

3. **Owners, Occupants and Uses:** Owners include: Mallinckrodt Chemical Works, United Nuclear Corporation, Gulf United Nuclear Fuels Corporation, Combustion Engineering Corporation, Asa Brown Boveri, and Westinghouse Electric Company, LLC. Building 120 was used as part of the dairy farm operation prior to purchase of the farm and buildings by Malinkrodt Chemical Works.

4. **Builder-Contractor:** The contractor is unknown.

5. **Original Plans and Construction:** There are no known original plans for Building 120.

6. **Alterations and Additions:** There have been no additions to this building since construction.

B. Historical Context

Building 120 is an extant building from the dairy farm that operated on the property prior to the purchase of the land by Mallinckrodt Chemical Works. As part of the Hematite complex Building 120 functioned as storage for both clean and contaminated equipment.

PART II. ARCHITECTURAL INFORMATION

A. General Statement

1. **Architectural Character:** Building120 follows the "English Barn" type.

2. **Condition of Fabric:** Good condition

B. **Description of Exterior**

1. **Overall dimensions:** This building measures 79'-3" x 29' for both the first and second floors. Building 120 measures 4,640 total square feet.

2. **Foundation:** Stone and mortar

3. **Walls:** Vertical wood clapboard siding

4. **Structural system, framing:** Timber frame

5. **Porches:** There are no porches.

6. **Chimneys:** There are no chimneys.

7. **Openings:**

   a. **Doorways and doors:** There are two loft doors that swung on iron hinges but they have been secured and remain permanently closed. There are two doors, a large sliding barn door on the south side, east end, of the barn which is no longer in use and a regular hinged door on the west end of the barn.

   b. **Windows:** There are six, three-over-three pane windows on each side of the barn and two, three-over-three pane windows on each end.

8. **Roof:**

   a. **Shape, covering:** Pitched, corrugated metal

   b. **Cornice, eaves:** The roof slightly overhangs the walls.

   c. **Dormers, cupolas, towers:** There are no dormers, cupolas or towers.

C. **Description of Interior**

1. **Floor plans:** Building 120 is a two-story structure.

2. **Stairways:** There is a ladder leading to the loft.

3. **Flooring:** The main barn floor is dirt and the loft floor is wood plank.

4. **Wall and ceiling finish:** The walls and ceilings have exposed beams and exterior planking.

5. **Openings:** There are no openings.

6. **Decorative features:** There are no decorative features.

7. **Hardware:** There is no hardware.

8. **Mechanical equipment:**

   a. **Heating, air conditioning, ventilation:** There is no mechanical equipment for this structure.

   b. **Lighting:** There is no lighting.

   c. **Plumbing:** There is no plumbing.

D. **Site**

1. **General setting and orientation:** Building 120 is located approximately 50' from State Road P. The main entrance is located on the south side of the structure, east of the Building 101 and north of the main Facility.

2. **Historic landscape design:** Vernacular landscape

PART III. SOURCES OF INFORMATION

A. **Architectural drawings:** The are no known drawings for this building.

B. Bibliography:

Malich, Phillip J. *034-JE-02 Proposed Hematite Former Fuel Processing Facility*. Missouri Department of Natural Resources, State Historic Preservation Office, Jefferson City, Missouri, 2002.

Noble, Allen G., and Richard K. Cleek. *The Old Barn Book: A Field Guide to North American Barns and Other Structures.* New Brunswick: Rutgers University Press, 1995.

PART IV. PROJECT INFORMATION

This Historic American Engineering Record (HAER) documentation project was undertaken due to the owner's desire to decommission the Facility. The Facility will be disassembled (this is being done for safety purposes and the work is being done in accordance with federal law and regulations regarding hazardous waste clean-up and disposal). In 2003, Westinghouse Electric Company, LLC, hired SCI Engineering, Inc., of St. Charles, Missouri, to complete the HAER documentation of the Hematite Fuel Fabrication Facility. Dr. Steve Dasovich supervised the project and Historian Colleen Small-Vollman authored the HAER documentation report. The report was compiled by Susan Sheppard. Bruce Meyer and Todd Kapler completed the photographic documentation of the Facility, and Asa Westphal completed the floor plan drawings.